HAIL IN THE TROPICS.

The following note regarding the occurrence of hail on Naos Island, Canal Zone, is extracted from the Canal Record of July 3, 1912:

During the rain and wind squall along the Pacific coast, Saturday afternoon, June 15, the wind reached a maximum velocity of 50 miles an hour from the south at Sosa, and 33 miles from the south at Ancon. During this squall hail was reported on Naos Island. This is the third time during the past six years that hail has been reported in the Canal Zone. Hail fell at Alhajuela on the afternoon of May 28, 1910; also at Cucaracha some two years earlier. No hail has yet been observed at any of the regular meterological stations in the Canal Zone. The phenomenon is unusual in a tropical country.

The reference that hail is unusual in tropical countries may apply to the Canal Zone and doubtless to other portions of the Tropics having comparatively low elevations, but in some tropical countries hail is of frequent occurrence.

The following extract from Hann: Lehrbuch der Meteorologie. 1901, p. 690, may be of interest in this connection:

The most violent hailstorms, as regards the size of the stones, seem to occur in the subtropical latitudes, especially where the ground is somewhat elevated above sea level. In upper India, Mesopotamia, Asia Minor (especially Armenia), in Australia, Natal, the middle and southern parts of the United States, fearful hailstorms occasionally occur. It also hails in the Sahara, according to Rholfs and Nichtigal, which ought not to surprise us, since in India also the strongest hailstorms occur in the hottest and driest districts, in Moradabad, Naim Tal, Delhi, and Peshawar. South of 16° north latitude there is seldom any hail in India.

That hail is infrequent at low elevations in tropical countries is partially borne out by an examination of the records made at Key West, Fla., latitude 24° 33′ north, and at San Juan, P. R., latitude 18° 29′ n. At the former place no hail has been reported in a period of nearly 30 years in which meteorological observations have been made that are readily accessible, while at the latter place in a period of 13 years no hail has occurred.